

INCREASED REFERENCE AND ABSOLUTE CORONARY FLOW RESERVE AFTER PRIMARY PERCUTANEOUS CORONARY INTERVENTION FOR A FIRST ACUTE ANTERIOR MYOCARDIAL INFARCTION ARE ASSOCIATED WITH SURVIVAL AT 10 YEARS FOLLOW-UP

i2 Poster Contributions

Ernest N. Morial Convention Center, Hall F

Monday, April 04, 2011, 9:30 a.m.-10:45 a.m.

Session Title: Intravascular Diagnostics II

Abstract Category: 3. Intravascular Diagnostics

Session-Poster Board Number: 2509-562

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Background: Doppler-derived coronary flow reserve (CFR) has shown to be a prognostic marker for LV function recovery after anterior MI. However, there are no data regarding the prognostic value of infarct related artery (IRA) CFR and reference CFR (RefCFR) at long term follow up.

Methods: A total of 99 consecutive patients (mean age: 56 years) with a first anterior wall myocardial infarction were included. All patients underwent primary PCI by standard procedures. Intracoronary Doppler derived CFR and RefCFR were determined after PCI in 88 and 97 patients, respectively. Patients were followed for 10 years to determine the occurrence of death.

Results: Complete follow up was documented in 95 patients (96%). Seventeen patients died (17,9%) during a mean follow up of 10,3 yrs (range 0,1-13 yrs.). Mean CFR and RefCFR were lower in the group that did not survive ($1,3 \pm 0,22$ vs. $1,5 \pm 0,37$; $p=0,096$ and $2,1 \pm 0,35$ vs. $2,4 \pm 0,56$; $p=0,004$). Furthermore, patients with a CFR $>1,5$ and Ref-CFR $>2,5$ post primary PCI had a significantly better prognosis to survive compared to CFR $\leq 1,5$ and RefCFR $\leq 2,5$, respectively (96% vs 75%; $p=0,02$ and 92% vs 75%; $p=0,04$). Survival curves are shown in the Figure below.

Conclusions: Intracoronary derived Doppler CFR (in IRA) and reference CFR assessed directly after primary PCI have prognostic value after long term follow up. High values of IRA CFR and Ref CFR are associated with lower mortality and better myocardial perfusion leading to a better LV recovery.

